

## ABSTRACT OF THE DISCLOSURE

A two phase reservation mechanism for use with computer networks carrying voice or other time or bandwidth sensitive traffic. During the first or "resource allocation" phase, network resources sufficient to support the anticipated voice traffic are set aside within the computer network along the route between the sourcing entity and receiving entity. Although the network resources have been set aside, they are specifically not made available to the voice traffic, until the second phase of the reservation mechanism, called the "resource available" phase. During the resource available phase, the network resources that were previously set aside are now made available to the voice traffic.